

The Korean Journal of Chemical Engineering

July 2016
Volume 33, Number 7

Korean J. Chem. Eng. 33(7) 1977-2252
Print ISSN 0256-1115
Online ISSN 1975-7220

INVITED REVIEW PAPER

Daeok Kim and Huen Lee 1977 Phase behavior of gas hydrates in nanoporous materials: Review

REVIEW PAPER

Hemraj Mahipati Yadav, Jung-Sik Kim, 1989 Developments in photocatalytic antibacterial activity of nano TiO₂: A review
and Shivaji Hariba Pawar

PROCESS SYSTEMS ENGINEERING, PROCESS SAFETY

Kyungjae Tak, Junghwan Kim, 1999 Kriging models for forecasting crude unit overhead corrosion
Hweeung Kwon, Jae Hyun Cho,
and Il Moon

TRANSPORT PHENOMENA

Liangchao Li and Bin Xu 2007 Numerical simulation of flow field characteristics in a gas-liquid-solid agitated tank

CATALYSIS, REACTION ENGINEERING

Mohamad Reza Khodadadi, 2018 Highly efficient Al-doped ZnO : Ag catalyst for RB19 photocatalytic degradation:
Mohamad Ebrahim Olya,
and Alireza Naeimi

Maamar Fedailaine, Sabrina Berkani, 2027 Ni²⁺ reduction under solar irradiation over CuFe₂O₄/TiO₂ catalysts
and Mohamed Trari

Xiaoxiao Wang, Fang Guo, 2034 The catalytic performance of methylation of naphthalene with methanol over
Xianxian Wei, Zhenmin Liu,
Wei Zhang, Shaoqing Guo,
and Liangfu Zhao

ENERGY

Mahdieh Samavi, Barat Ghobadian, 2042 Prediction of biodiesel properties and its characterization using fatty acid profiles
Mehdi Ardjomand,
and Aliakbar Seyfkordi

Hari Prakash Veluswamy, 2050 Mechanism of methane hydrate formation in the presence of hollow silica
Pinnelli Seetha Rama Prasad,
and Praveen Linga

Xiaoxiang Han, Wei Yan, 2063 Transesterification of soybean oil to biodiesel by tin-based Brønsted-Lewis acidic
Chin-Te Hung, Yanfei He,
Pei-Hao Wu, Li-Li Liu,
Shing-Jong Huang, and Shang-Bin Liu

ENVIRONMENTAL ENGINEERING

Weihua Zou, Lie Liu, Hongping Li, 2073 Investigation of synergistic adsorption between methyl orange and Cd(II) from
and Xiuli Han
binary mixtures on magnesium hydroxide modified clinoptilolite

- Hyungkyu Kang, Hoyoung Song, Jonghan Ha, and Byung-Ki Na 2084 **Effects of oxidized biodiesel on formation of particulate matter and NO_x from diesel engine**
- Pattaraluk Jaruwat, Wipawan Pitakpoolsil, and Mali Hunsom 2090 **Treatment of biodiesel wastewater by indirect electrooxidation: Effect of additives and process kinetics**
- Ting Bai, Xin Zhang, Xiling Liu, Tengfei Chen, and Wentao Fan 2097 **Coupling conversion of methanol and 1-butylene to propylene on HZSM-5 molecular sieve catalysts prepared by different methods**
- Arunkumar Patchaiyappan, Sarangapani Saran, and Suja Purushothaman Devipriya 2107 **Recovery and reuse of TiO₂ photocatalyst from aqueous suspension using plant based coagulant - A green approach**
- Lina Rose Varghese, Devlina Das, and Nilanjana Das 2114 **Adsorptive removal of nickel(II) ions from aqueous environments using gum based and clay based polyaniline/chitosan nanobiocomposite beads and microspheres: Equilibrium, kinetic, thermodynamics and ex-situ studies**

BIOTECHNOLOGY

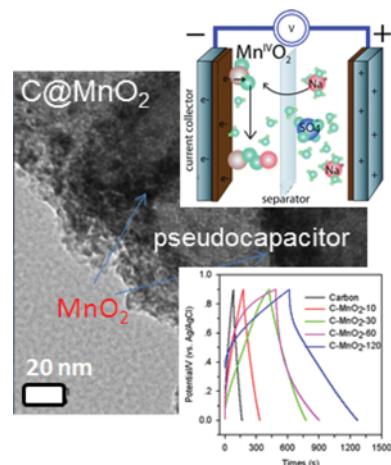
-
- Changha Ahn, Vivek Kumar Morya, and Eun-Ki Kim 2127 **Tuning surface-active properties of bio-surfactant sophorolipids by varying fatty-acid chain lengths**
- Xiaoliang Yuan, Shijie Liu, Guangrong Feng, Yingying Liu, Yongdan Li, Houfang Lu, and Bin Liang 2134 **Effects of ball milling on structural changes and hydrolysis of lignocellulosic biomass in liquid hot-water compressed carbon dioxide**

SEPARATION TECHNOLOGY, THERMODYNAMICS

-
- Kihong Kim, Heechan Cho, Sihyun Lee, Myoungwook Mun, and Deayang Lee 2142 **Coal and solvent properties and their correlation with extraction yield under mild conditions**
- Rasoul Moradi, Saeed Mahriz Monfared, Younes Amini, and Abolfazl Dastbaz 2160 **Vacuum enhanced membrane distillation for trace contaminant removal of heavy metals from water by electrospun PVDF/TiO₂ hybrid membranes**
- Fang Xie, Jinrong Liu, Jianmin Wang, and Weiwei Chen 2169 **Computational fluid dynamics simulation and particle image velocimetry experimentation of hydrodynamic performance of flat-sheet membrane bioreactor equipped with micro-channel turbulence promoters with micro-pores**
- Faraz Qasim, Hyeung Chul Choi, Jae Sun Shin, and Sang Jin Park 2179 **Liquid-liquid equilibrium data for water-ethanol-entrainer ternary system with entrainers: Cyclohexane, n-pentane, DEE (diethyl ether), DIPE (di-isopropyl ether), ETBE (ethyl tert-butyl ether)**
- Jeasung Park, Seong-Pil Kang, and Jong-Won Lee 2186 **¹³C NMR analysis of C₂H₆+C₂H₄+THF mixed hydrate for an application to separation of C₂H₄ and C₂H₆**
- Byung Heung Park 2191 **Volumetric properties of binary mixtures of 1-butyl-3-methylimidazolium halides with water, methanol or ethanol at 293.15 to 318.15 K**
- Ali Talebian, Ali Reza Keshtkar, and Mohammad Ali Moosavian 2205 **Continuous biosorption of U(VI) and Fe(II) using *Cystoseira indica* biomass packed bed column: Breakthrough curves studies in single, binary and multi-component systems**

MATERIALS (Organic, Inorganic, Electronic, Thin Films)

-
- Guoting Li, Weiyong Zhu, Lingfeng Zhu, and Xiaoqi Chai 2215 **Effect of pyrolytic temperature on the adsorptive removal of p-benzoquinone, tetracycline, and polyvinyl alcohol by the biochars from sugarcane bagasse**
- Tanveer Ahmad Tabish, Muhammad Naeem Ashiq, Muhammad Azeem Ullah, Shahid Iqbal, Muhammad Latif, Muhammad Ali, Muhammad Fahad Ehsan, and Furhan Iqbal 2222 **Biocompatibility of cobalt iron oxide magnetic nanoparticles in male rabbits**



POLYMER, INDUSTRIAL CHEMISTRY

Min Ku Jeon, Eun-Young Choi, 2235 **Electrolytic reduction rate of porous UO₂ pellets**
Sung-Wook Kim, Sang-Kwon Lee,
Hyun Woo Kang, Sun Seok Hong,
Jeong Lee, Jin-Mok Hur,
Sang-Chae Jeon, Ju Ho Lee,
Yung-Zun Cho, and Do-Hee Ahn

FLUIDIZATION, PARTICLE TECHNOLOGY

Hua-wei Jiang, Jian-qiang Gao, 2240 **Detection of gas-solid flow faults of a circulating fluidized bed using pressure fluctuations in wind caps**
Hong-wei Chen, Jun-fu Lu,
Fu-mao Wang, Yang Wang,
and Zhen-xin Wu